

RECEIVED

JUL 26 2001

TECH CENTER 1600/2900



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Jeffrey Besterman et al)	Examiner: S. McGarry
)	
Serial No.: 09/420,692)	Art Unit: 1635
)	
Filed: October 19, 1999)	
)	
For: Modulation of Gene Expression by)	
Combination Therapy)	
)	
Attorney Docket No. 106101.197)	

STATEMENT UNDER 37 C.F.R. §1.821(f)

BOX SEQUENCE

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

The diskette enclosed herewith contains a computer readable form of the Sequence Listing for the above-referenced patent application. The information recorded in computer readable form on the diskette is identical to the written sequence listing. The computer readable form of the sequence listing contained on this diskette is understood to comply with the requirements of §1.821(f).

Respectfully submitted,

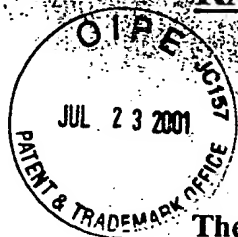
A handwritten signature in black ink, appearing to read "W.A. Keown".

Wayne A. Keown, Ph.D.
Registration No. 33,923

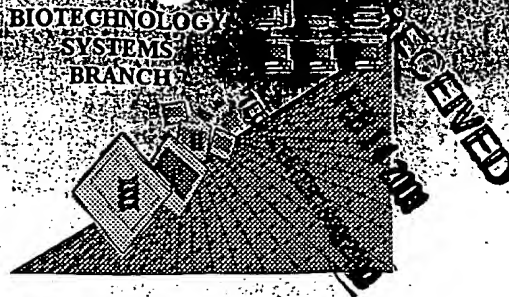
Date: 7/19/01

HALE AND DORR LLP
60 State Street
Boston, MA 02109
(617) 526-6000 (telephone)
(617) 526-5000 (facsimile)

RAW SEQUENCE LISTING
ERROR REPORT



BIOTECHNOLOGY
SYSTEMS
BRANCH



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer-readable form:

Application Serial Number:

09/420,692

Source:

1643

Date Processed by STIC:

02/05/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER
VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND
TRADEMARK OFFICE WEBSITE. SEE BELOW

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 -1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>



Raw Sequence Listing Error Summary

ERROR DETECTED SUGGESTED CORRECTION

SERIAL NUMBER: 09/420, 642

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 ☐ Wrapped Nucleics The number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".
- 2 ☐ Wrapped Aminos The amino acid number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".
- 3 ☐ Incorrect Line Length The rules require that a line not exceed 72 characters in length. This includes spaces.
- 4 ☐ Misaligned Amino Acid Numbering The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs between the numbering. It is recommended to delete any tabs and use spacing between the numbers.
- 5 ☐ Non-ASCII This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.
Please ensure your subsequent submission is saved in ASCII text so that it can be processed.
- 6 ☐ Variable Length Sequence(s) ☐ contain n's or Xaa's which represented more than one residue.
As per the rules, each n or Xaa can only represent a single residue.
Please present the maximum number of each residue having variable length and indicate in the (ix) feature section that some may be missing.
- 7 ☐ PatentIn ver. 2.0 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) ☐. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence.
- 8 ☐ Skipped Sequences (OLD RULES) Sequence(s) ☐ missing. If intentional, please use the following format for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X:
(i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:
This sequence is intentionally skipped

Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).
- 9 ☐ Skipped Sequences (NEW RULES) Sequence(s) ☐ missing. If intentional, please use the following format for each skipped sequence.
<210> sequence id number
<400> sequence id number
000
- 10 ☐ Use of n's or Xaa's (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 11 ☒ Use of <213>Organism (NEW RULES) Sequence(s) A-11 are missing this mandatory field or its response.
- 12 ☐ Use of <220>Feature (NEW RULES) Sequence(s) ☐ are missing the <220>Feature and associated headings.
Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown"
Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)
- 13 ☐ PatentIn ver. 2.0 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).
Instead, please use "File Manager" or any other means to copy file to floppy disk.

1643



RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/420,692

DATE: 03/05/2001
TIME: 1:11:16

Input Set : A:\106101-197.ST25.txt
Output Set: N:\CRF3\02052001\1420692.raw

Does Not Comply
Corrected Diskette Needed
see page 5

3 <110> APPLICANT: Besterman, Jeffrey
4 MacLeod, Robert
5 Siders, William
7 <120> TITLE OF INVENTION: Modulation of Gene Expression by Combination Therapy
9 <130> FILE REFERENCE: 106101.197
11 <140> CURRENT APPLICATION NUMBER: 09/420,692
12 <141> CURRENT FILING DATE: 1999-10-19
14 <150> PRIOR APPLICATION NUMBER: US 60/104,804
15 <151> PRIOR FILING DATE: 1998-10-19
17 <160> NUMBER OF SEQ ID NOS: 90
19 <170> SOFTWARE: PatentIn version 3.0
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 20
23 <212> TYPE: DNA
25 <213> ORGANISM: oligonucleotide
27 <400> SEQUENCE: 1
28 aagcatgagc accgtttccc 20
31 <210> SEQ ID NO: 2
32 <211> LENGTH: 20
33 <212> TYPE: DNA
34 <213> ORGANISM: oligonucleotide
36 <400> SEQUENCE: 2
37 ttcattgacg ccaaggccac 20
40 <210> SEQ ID NO: 3
41 <211> LENGTH: 20
42 <212> TYPE: DNA
43 <213> ORGANISM: oligonucleotide
45 <400> SEQUENCE: 3
46 uuaatgtaac ctaaggucac 20
49 <210> SEQ ID NO: 4
50 <211> LENGTH: 20
51 <212> TYPE: DNA
52 <213> ORGANISM: oligonucleotide
54 <400> SEQUENCE: 4
55 aacgatcagg acccttgucc 20
58 <210> SEQ ID NO: 5
59 <211> LENGTH: 20
60 <212> TYPE: DNA
61 <213> ORGANISM: oligonucleotide
63 <400> SEQUENCE: 5
64 gctgtctctt tccaaatctt 20
67 <210> SEQ ID NO: 6
68 <211> LENGTH: 20
69 <212> TYPE: DNA
70 <213> ORGANISM: oligonucleotide
72 <400> SEQUENCE: 6
73 ttctcgttaa gctgtctctt 20

See item 12 on ERROR Summary Sheet
Response can be 1 of 3: 1) Scientific name
"Genus Species", 2) Artificial Sequence, 3) Unknown



RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/420,692

DATE: 02/05/2001
TIME: 14:11:16

Input Set : A:\106101-197.ST25.txt
Output Set: N:\CRF3\02052001\1420692.raw

76 <210> SEQ ID NO: 7
77 <211> LENGTH: 20
78 <212> TYPE: DNA
79 <213> ORGANISM: oligonucleotide
82 <400> SEQUENCE: 7
83 ttctctcttca cacattccctt 20
86 <210> SEQ ID NO: 8
87 <211> LENGTH: 20
88 <212> TYPE: DNA
89 <213> ORGANISM: oligonucleotide
92 <400> SEQUENCE: 8
93 cgtgcacagag attcaatttc 20
96 <210> SEQ ID NO: 9
97 <211> LENGTH: 20
98 <212> TYPE: DNA
99 <213> ORGANISM: oligonucleotide — page 1
102 <400> SEQUENCE: 9
103 aagtcacata actgattcctt 20
106 <210> SEQ ID NO: 10
107 <211> LENGTH: 20
108 <212> TYPE: DNA
109 <213> ORGANISM: oligonucleotide
111 <400> SEQUENCE: 10
112 ctccggataat tcttctttac 20
115 <210> SEQ ID NO: 11
116 <211> LENGTH: 20
117 <212> TYPE: DNA
118 <213> ORGANISM: oligonucleotide
120 <400> SEQUENCE: 11
121 ccaggtagcc ctctcggat 20
124 <210> SEQ ID NO: 12
125 <211> LENGTH: 20
126 <212> TYPE: DNA
127 <213> ORGANISM: oligonucleotide
130 <400> SEQUENCE: 12
131 agggatttga ctttagccag 20
134 <210> SEQ ID NO: 13
135 <211> LENGTH: 20
136 <212> TYPE: DNA
137 <213> ORGANISM: oligonucleotide
140 <400> SEQUENCE: 13
141 tccaaggaca aatctttatt 20
144 <210> SEQ ID NO: 14
145 <211> LENGTH: 20
146 <212> TYPE: DNA
147 <213> ORGANISM: oligonucleotide
150 <400> SEQUENCE: 14
151 catgagcacc gttctccaag 20
154 <210> SEQ ID NO: 15

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/420,692
 DATE: 02/05/2001
 TIME: 14:11:16

Input Set : A:\106101-197.ST25.txt
 Output Set: N:\CRF3\02052001\1420692.raw

155 <211> LENGTH: 20
 156 <212> TYPE: DNA
 157 <213> ORGANISM: oligonucleotide
 160 <400> SEQUENCE: 15
 161 acgtccatc accctccggt 20
 164 <210> SEQ ID NO: 16
 165 <211> LENGTH: 20
 166 <212> TYPE: DNA
 167 <213> ORGANISM: oligonucleotide
 169 <400> SEQUENCE: 16
 170 tcaattcttg ctgcttccc 20
 173 <210> SEQ ID NO: 17
 174 <211> LENGTH: 20
 175 <212> TYPE: DNA
 176 <213> ORGANISM: oligonucleotide
 179 <400> SEQUENCE: 17
 180 gcttggttcc cgtttctag 20
 183 <210> SEQ ID NO: 18
 184 <211> LENGTH: 20
 185 <212> TYPE: DNA
 186 <213> ORGANISM: oligonucleotide
 189 <400> SEQUENCE: 18
 190 ctagacgtcc attcaattcc 20
 193 <210> SEQ ID NO: 19
 194 <211> LENGTH: 20
 195 <212> TYPE: DNA
 196 <213> ORGANISM: oligonucleotide
 199 <400> SEQUENCE: 19
 200 actctacggg ctcaattct 20
 203 <210> SEQ ID NO: 20
 204 <211> LENGTH: 20
 205 <212> TYPE: DNA
 206 <213> ORGANISM: oligonucleotide
 209 <400> SEQUENCE: 20
 210 tctgccatc ccaactaacg. 20
 213 <210> SEQ ID NO: 21
 214 <211> LENGTH: 20
 215 <212> TYPE: DNA
 216 <213> ORGANISM: oligonucleotide
 219 <400> SEQUENCE: 21
 220 catctgccat tccactcta 20
 223 <210> SEQ ID NO: 22
 224 <211> LENGTH: 20
 225 <212> TYPE: DNA
 226 <213> ORGANISM: oligonucleotide
 228 <400> SEQUENCE: 22
 229 ggcactctgc attccactc 20
 232 <210> SEQ ID NO: 23
 233 <211> LENGTH: 20

Page 1

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/420,692

DATE: 02/05/2001
TIME: 14:11:17

Input Set : A:\106101-197.ST25.txt
Output Set: N:\CRF3\02052001\1420692.raw

234 <212> TYPE: DNA
235 <213> ORGANISM: oligonucleotide
236 <400> SEQU HCE: 23
239 atcggacttg ctctctctgg 20
242 <210> SEQ ID NO: 24
243 <211> LENGTH: 20
244 <212> TYPE: DNA
245 <213> ORGANISM: oligonucleotide
246 <400> SEQUENCE: 24
249 ggtgacggga gggcagaact 20
252 <210> SEQ ID NO: 25
253 <211> LENGTH: 20
254 <212> TYPE: DNA
255 <213> ORGANISM: oligonucleotide
256 <400> SEQUENCE: 25
259 taccagaaac aggggtgacg 20
262 <210> SEQ ID NO: 26
263 <211> LENGTH: 20
264 <212> TYPE: DNA
265 <213> ORGANISM: oligonucleotide
266 <400> SEQUENCE: 26
269 gtgcattgtt gggattccctg 20
272 <210> SEQ ID NO: 27
273 <211> LENGTH: 20
274 <212> TYPE: DNA
275 <213> ORGANISM: oligonucleotide
276 <400> SEQUENCE: 27
279 gtggaacgac agattgacat 20
282 <210> SEQ ID NO: 28
283 <211> LENGTH: 20
284 <212> TYPE: DNA
285 <213> ORGANISM: oligonucleotide
287 <400> SEQUENCE: 28
288 aggccacaaa caaccatgtac 20
291 <210> SEQ ID NO: 29
292 <211> LENGTH: 20
293 <212> TYPE: DNA
294 <213> ORGANISM: oligonucleotide
297 <400> SEQUENCE: 29
298 cgaacctcac acaacagctt 20
301 <210> SEQ ID NO: 30
302 <211> LENGTH: 20
303 <212> TYPE: DNA
304 <213> ORGANISM: oligonucleotide
307 <400> SEQUENCE: 30
308 gataagcgaa cctcacacaa 20
311 <210> SEQ ID NO: 31
312 <211> LENGTH: 20
313 <212> TYPE: DNA

page 1

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/420,692

DATE: 02/05/2001
TIME: 14:11:17

Input Set : A:\106101-197.ST25.txt
Output Set: N:\CRF3\02052001\1420692.raw

314 <213> ORGANISM: oligonucleotide
317 <400> SEQUENCE: 31
318 ctgcacaaatt tgcacactaa 20
321 <210> SEQ ID NO: 32
322 <211> LENGTH: 20
323 <212> TYPE: DNA
324 <213> ORGANISM: oligonucleotide
327 <400> SEQUENCE: 32
328 cagaaacagg ggtgacggga 20
331 <210> SEQ ID NO: 33
332 <211> LENGTH: 20
333 <212> TYPE: DNA
334 <213> ORGANISM: oligonucleotide
337 <400> SEQUENCE: 33
338 gcacaaagta ctgcacaaatt 20
341 <210> SEQ ID NO: 34
342 <211> LENGTH: 20
343 <212> TYPE: DNA
344 <213> ORGANISM: oligonucleotide
346 <400> SEQUENCE: 34
347 tccagaatgc acaaaagtact 20
350 <210> SEQ ID NO: 35
351 <211> LENGTH: 20
352 <212> TYPE: DNA
353 <213> ORGANISM: oligonucleotide
356 <400> SEQUENCE: 35
357 gagacagcag caccagcggg 20
360 <210> SEQ ID NO: 36
361 <211> LENGTH: 20
362 <212> TYPE: DNA
363 <213> ORGANISM: oligonucleotide
366 <400> SEQUENCE: 36
367 atgaccgagt gggagacagc 20
370 <210> SEQ ID NO: 37
371 <211> LENGTH: 20
372 <212> TYPE: DNA
373 <213> ORGANISM: oligonucleotide
376 <400> SEQUENCE: 37
377 ggatgaccga gtgggagaca 20
380 <210> SEQ ID NO: 38
381 <211> LENGTH: 20
382 <212> TYPE: DNA
383 <213> ORGANISM: oligonucleotide
386 <400> SEQUENCE: 38
387 caggatgacc gagtgggaga 20
390 <210> SEQ ID NO: 39
391 <211> LENGTH: 20
392 <212> TYPE: DNA
393 <213> ORGANISM: oligonucleotide

page 1

The types of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

VERIFICATION SUMMARY

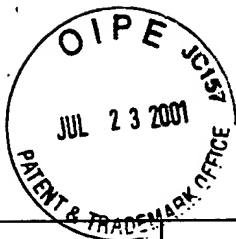
PATENT APPLICATION: US/09/420,692

DATE: 02/05/2001

TIME: 14:11:18

Input Set : A:\106101-197.ST25.txt

Output Set: N:\CRF3\02052001\I420692.raw



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
09/420,692			

EXAMINER	
McGarry	
ART UNIT	PAPER NUMBER
1635	9

DATE MAILED:

Please find below a communication from the EXAMINER in charge of this application

Commissioner of Patents

The communication filed on 1/14/01 is not fully responsive to the communication mailed 12/01/00 for the reason(s) set forth on the attached Notice to Comply With the Sequence Rules or CRF Diskette Problem Report.

Since the response appears **bona fide** applicant is given ONE MONTH, or THIRTY DAYS, whichever is longer, from the mailing date of this letter within which to comply with the sequence rules, 37 CAR 1.821 - 1.825. Failure to comply with these requirements will result in ABANDONMENT of the application under 37 CAR 1.821(g). Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CAR 1.136(a). In no case may an applicant extend the period for reply beyond the SIX MONTH statutory period. Direct the reply to the undersigned. Applicant is requested to return a copy of the attached Notice to Comply with the reply.

Any inquiry concerning this communication should be directed to Examiner Sean McGarry, Art Unit 1635, whose telephone number is (703) 305-7028.

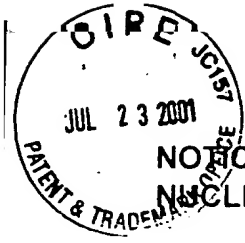
Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0196.

June 19, 2001


SEAN MCGARRY
PRIMARY EXAMINER

HALE & DORR DOCKETING

RE: 106101.197
Action Date: 7.19.01
Action to be Taken: D10
Docketed by: 01 On: 6.26.01



**NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING
NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

Applicant must file the items indicated below within the time period set the Office action to which the Notice is attached to avoid abandonment under 35 U.S.C. § 133 (extensions of time may be obtained under the provisions of 37 CFR 1.136(a)).

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):

- ☒ 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to the final rulemaking notice published at 55 FR 18230 (May 1, 1990), and 1114 OG 29 (May 15, 1990). If the effective filing date is on or after July 1, 1998, see the final rulemaking notice published at 63 FR 29620 (June 1, 1998) and 1211 OG 82 (June 23, 1998).
- ☐ 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).
- ☐ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).
- ☒ 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."
- ☐ 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).
- ☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable from of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).
- ☐ 7. Other: _____

Applicant Must Provide:

- ☒ An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".
- ☒ An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification.
- ☒ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).

For questions regarding compliance to these requirements, please contact:

For Rules Interpretation, call (703) 308-4216

For CRF Submission Help, call (703) 308-4212

PatentIn Software Program Support

Technical Assistance.....703-287-0200

To Purchase PatentIn Software.....703-306-2600

PLEASE RETURN A COPY OF THIS NOTICE WITH YOUR REPLY